

Applicant : Nai-Kong CHEUNG
U.S. Serial No.: 10/621,027
Filed : July 16, 2003
Page : 3

AMENDMENTS TO THE CLAIMS:

Please cancel claims 120-148 without prejudice to Applicant's rights to pursue the canceled subject matter in a continuation or continuation-in-part application, and add the following new claims.

1-148. (Canceled)

149. (New) A composition for achieving a synergistic therapeutic effect in a mammal in need thereof, comprising:

- (a) a glucan comprising a backbone having 1,3-beta linkages; and
- (b) a antibody administered to a mammal and is effective against cancer or tumor cells,

wherein the synergistic therapeutic effect is the eradication or suppression of cancer or tumor cells; wherein the glucan is orally administered to said mammal; wherein the glucan is co-administered or administered concurrently with the antibody to said mammal; and wherein the efficacy of the antibodies to eradicate or suppress cancer or tumor cells is synergistically enhanced by the orally administered glucan.

150. (New) The composition of claim 149, wherein the antibody is a monoclonal antibody or a tumor-binding antibody.

151. (New) The composition of claim 150, wherein the antibody is capable of activating complement.

Applicant : Nai-Kong CHEUNG
U.S. Serial No.: 10/621,027
Filed : July 16, 2003
Page : 4

152. (New) The composition of claim 151, the antibody is further capable of activating the antibody dependent cell-mediated cytotoxicity.

153. (New) The composition of claim 150, wherein the antibody is directed at HER-1 (epidermal growth factor receptor) or directed to a ganglioside.

154. (New) The composition of claim 153, wherein the ganglioside is GD2 or GD3.

155. (New) The composition of claim 150, wherein the antigen is CD20 or CD22 or HER-2/neu or CD25.

156. (New) The composition of claim 149, wherein the cancer is neuroblastoma, melanoma, non-Hodgkin's lymphoma, Epstein-Barr related lymphoma, Hodgkin's lymphoma, retinoblastoma, small cell lung cancer, brain tumors, leukemia, epidermoid carcinoma, prostate cancer, renal cell carcinoma, transitional cell carcinoma, breast cancer, ovarian cancer, lung cancer, colon cancer, liver cancer, stomach cancer, or other gastrointestinal cancers.

157. (New) The composition of claim 149 and a pharmaceutically acceptable carrier.

158. (New) The composition of claim 149, wherein the glucan is of high molecular weight, or wherein the molecular weight of the glucan is between 250,000 to 450,000 Daltons.

159. (New) The composition of claim 149, wherein the glucan is derived from barley, oat, wheat, moss or yeast.

160. (New) The composition of claim 149, wherein the glucan is stable to heat treatment.

Applicant : Nai-Kong CHEUNG
U.S. Serial No.: 10/621,027
Filed : July 16, 2003
Page : 5

161. (New) The composition of claim 160, wherein the composition is stable after boiling for 3 hours.

162. (New) The composition of claim 149, wherein the amount is about ≥ 25 mg/kg/day, five days a week for a total of 2-4 weeks.

163. (New) The composition of claim 149, wherein the backbone further comprises 1,4-beta linkages.

164. (New) The composition of claim 149, wherein the glucan further comprises at least one side chain having 1,3-beta linkages.

165. (New) The composition of claim 164, wherein the glucan further comprises at least one side chain having 1,6-beta linkages.

166. (New) The composition of claim 164, wherein the side chain is linked to the backbone by a 1,6-beta-linkage.

167. (New) The composition of claim 165, wherein the side chain is linked to the backbone by a 1,6-beta-linkage.

168. (New) A composition comprising a glucan, wherein the glucan is administered by oral route, in an amount wherein the glucan and an antibody administered to a subject have synergistic effect, wherein the glucan comprises 1,3- β and 1,4- β -linkages in the backbone, and wherein the molecular weight of the glucan ranges from 250,000 to 450,000 Daltons.

169. (New) The composition of claim 168, wherein the antibody is a monoclonal antibody.

Applicant : Nai-Kong CHEUNG
U.S. Serial No.: 10/621,027
Filed : July 16, 2003
Page : 6

170. (New) The composition of claim 168, wherein the antibody is an antibody against cancer.

171. (New) The composition of claim 170, wherein the antibody is a tumor-binding antibody.

172. (New) The composition of claim 171, wherein the antibody is capable of activating complement.

173. (New) The composition of claim 172, the antibody is further capable of activating the antibody dependent cell-mediated cytotoxicity.

174. (New) The composition of claim 171, wherein the antibody is directed at HER-1 (epidermal growth factor receptor).

175. (New) The composition of claim 171, wherein the antibody is directed to a ganglioside.

176. (New) The composition of claim 175, wherein the ganglioside is GD2 or GD3.

177. (New) The composition of claim 171, wherein the antigen is CD20 or CD22.

178. (New) The composition of claim 171, wherein the antigen is HER-2/neu.

179. (New) The composition of claim 171, wherein the antigen is CD25.

180. (New) The composition of claim 170, wherein the cancer is neuroblastoma, melanoma, non-Hodgkin's lymphoma, Epstein-Barr related lymphoma, Hodgkin's lymphoma, retinoblastoma, small cell lung cancer, brain tumors, leukemia, epidermoid carcinoma,

Applicant : Nai-Kong CHEUNG
U.S. Serial No.: 10/621,027
Filed : July 16, 2003
Page : 7

prostate cancer, renal cell carcinoma, transitional cell carcinoma, breast cancer, ovarian cancer, lung cancer, colon cancer, liver cancer, stomach cancer, or other gastrointestinal cancers.

181. (New) The composition of claim 168 and a pharmaceutically acceptable carrier.

182. (New) The composition of claim 168, wherein the glucan is of high molecular weight.

183. (New) The composition of claim 168, wherein the glucan is derived from barley, oat, wheat, moss or yeast.

184. (New) The composition of claim 168, wherein the glucan is stable to heat treatment.

185. (New) The composition of claim 184, wherein the composition is stable after boiling for 3 hours.

186. (New) The composition of claim 168, wherein the glucan further comprises 1,6- β side chain.

187. (New) The composition of claim 168, wherein the effective dose is about \geq 25 mg/kg/day, five days a week for a total of 2-4 weeks.

188. (New) The composition of claim 168, wherein the glucan and the antibody are administered concurrently.